



CWDM (1270nm ~ 1610nm) DFB Butterfly Laser Module (14 pins)

Features

- High Linearity Direct Modulation DFB laser
- High Output Power 1 ~ 150mW
- Built -in Isolator , TEC, Thermistor and Monitor PD
- Hermetically Sealed 14 Pin Butterfly Package
- RoHs Compliant

Application

- Long Reach Analog Transmission Systems
- Light Source
- Sensor
- Optical Communication
- Test equipment

Absolute Maximum Ratings (Tc=25°C .unless otherwise specified)

| Parameter | Symbol | Min. | Max. | Unit | Test Condition |
|-------------------------------|----------|--------|------|------|------------------------|
| Laser Chip | I_{FL} | - | 1200 | mA | Forward Current |
| | I_{RL} | - | 2 | mA | Reverse Current |
| Reverse Voltage (Laser diode) | V_{RL} | - | 2 | V | Reverse Current <500uA |
| Storage Temperature | Tstg | -40 | +100 | °C | - |
| Soldering Temperature/Time | - | 260/10 | | °C/S | - |

| | | | | | |
|-------------------------|----------|---|-----|-----|-----------------------|
| Relative Humidity | R_H | - | 95 | % | Top < 30 °C |
| Thermal Electric Cooler | - | - | 2 | V | Voltage |
| | - | - | 1.5 | A | Current |
| Fiber Yield Strength | - | - | 30 | nm | - |
| Fiber Bend Radius | - | - | 1 | kgf | - |
| Monitor Detector | V_{RD} | - | 15 | V | Reverse Voltage |
| | I_{RD} | - | 1 | mA | Reverse Photo Current |
| | I_{FD} | - | 2 | mA | Forward Current |

Operating Conditions

| Parameter | Symbol | Min | Typ. | Max. | Unit | Test Conditions |
|-----------------------------------|----------|------|------|------|------|-----------------|
| Caser Operating Temperature Range | T_C | - 20 | - | 60 | °C | - |
| Power Supply Voltage | V_{CC} | - | - | 5 | V | - |
| Relative Humidity | R_H | - | - | 80 | % | - |
| Bias Current | I_D | - | - | 70 | mA | - |

| | | | | | | |
|--------------------|---------------------|---|---|---|---|--------|
| TEC Cooler Current | I _{cooler} | - | - | 1 | A | ΔT=40K |
| TEC Voltage | V _{cooler} | - | - | 2 | V | ΔT=40K |

Specifications (electrical & optical characteristics)

| Parameter | Symbol | Min | Typ. | Max. | Unit | Test Conditions |
|-------------------------------|---------------------|-------------------|----------------|-------------------|------|--------------------------|
| Operating Voltage | V _{op} | - | - | 3 | V | CW |
| Threshold Current | I _{th} | - | 10 | 45 | mA | CW |
| Thermistor | R _{th} | 9.5 | 10 | 10.5 | KΩ | 25 °C |
| Thermoelectric cooler current | I _{cooler} | - | - | 1000 | mA | CW, -5 °C ~ 60 °C |
| Monitor Current | I _m | 10 | - | 150 | uA | CW, V _{rd} = 5V |
| Monitor Dark Current | I _d | - | - | 500 | nA | CW, V _{rd} = 5V |
| Central Wavelength | λ _c | λ _c -3 | λ _c | λ _c +3 | nm | CW, 25 °C |
| Output Power | P _o | 1 | - | 150 | mW | CW |

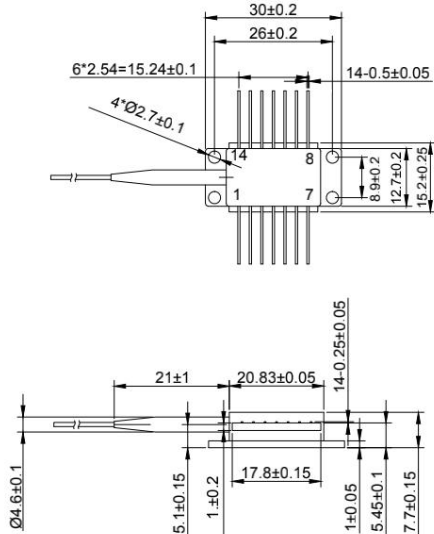
| | | | | | | |
|-----------------------------|------------------|----|-----|------|-------|-----------------------------------|
| Side Mode Suppression Ratio | SMSR | 30 | 50 | - | dB | CW, If = Ith + 20 mA |
| Slope Efficiency | Se | - | 0.3 | - | mW/mA | CW |
| Spectral Width | $\Delta \lambda$ | - | - | 0.3 | nm | CW, -20dB |
| Bias Current | I _B | - | - | 70 | mA | - |
| Tracking Error | ΔPf | - | - | 0.5 | dB | CW, -5 °C ~ 60 °C, Im = Im @25 °C |
| Monitor PD Capacitance | C | - | - | 0.5 | pF | Vrd = 5 V, F = 1 MHz |
| Connector Repeatability | | - | - | 0.3 | dB | CW |
| Frequency Range | F | 45 | - | 1000 | MHz | - |
| Tracking Error | Er | - | - | 1 | dB | Tc = -20 ~ 65 °C, APC, ATC |
| Rise Time / Fall Time | Tr / Tf | - | - | 2.0 | ns | 10-90% / 90-10% |

* CWDM DFB wavelength tolerance + - 3nm.

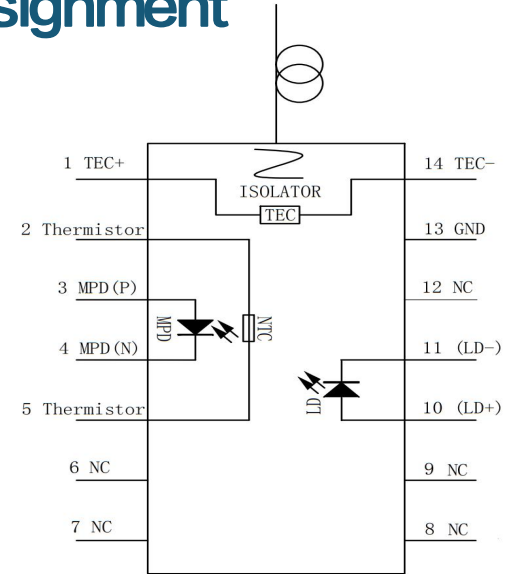
* LAN-WDM, MWDM, DWDM wavelength tolerance belongs to their specific properties.

* 1625nm, 1650nm, 1654nm wavelength tolerance + - 5nm.

Dimensions(nm)



Pin Assignment



Order Information

GTA9070



Please let us know your request details before order.

** If you have your own Pin Assignment request .
Kindly share it with us before order .



Customize for you

